# REQUEST FOR QUOTATIONS

*(THIS IS NOT AN ORDER)*

THIS RFQ [X] IS [ ] IS NOT A SMALL BUSINESS-SMALL PURCHASE SET-ASIDE (52.219-4)

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| 1. REQUEST NO. | 2. DATE ISSUED | 3. REQUISITION/PURCHASE REQUEST NO. | 4. CERT. FOR NAT. DEF. UNDER BDSA REG.2 AND/OR DMS REG. 1 | 5. RATING |
|---|---|---|---|---|
| RFQ01000039 | 4/3/2001 | 01FMD6064 | | |

5A. ISSUED BY
Department of the Treasury
Federal Law Enforcement Training Center
Procurement Division, Bldg. 93
Glynco, GA 31524

6. DELIVER BY (Date)
See Block 11

5B. FOR INFORMATION CALL: (Name and telephone no.) (No collect calls)
C.D.Smithson, Contracting Officer, 912-267-3589 **Email:don.smithson@fletc.treas.gov**

7. DELIVERY
[x] FOB DESTINATION [ ] OTHER (See Schedule)

8. TO: NAME AND ADDRESS, INCLUDING ZIP CODE

9. DESTINATION (Consignee and address, including ZIP Code)

10. PLEASE FURNISH QUOTATIONS TO THE ISSUING OFFICE IN BLOCK 5A ON OR BEFORE CLOSE OF BUSINESS (Date)
April 18, 2001

11. BUSINESS CLASSIFICATION (Check appropriate boxes)
a. NAICS CODE __233320__
b. SMALL BUSINESS SIZE STANDARD $27.5 million
c. [ ] SMALL [ ] OTHER THAN SMALL [ ] DISADVANTAGED [ ] WOMEN-OWNED

**IMPORTANT:** This is a request for information, and quotations furnished are not offers. If you are unable to quote, please so indicate on this form and return it to the address in Block 5A. This request does not commit the Government to pay any costs incurred in the preparation of the submission of this quotation contract for supplies or services. Supplies are of domestic origin unless otherwise indicated by quoter. Any representations and/or certifications attached to th Request for Quotations must be completed by the quoter.

12. SCHEDULE (Include applicable Federal, State and local taxes)

| ITEM NO. (a) | SUPPLIES/SERVICES (b) | QUANTITY (c) | UNIT (d) | UNIT PRICE (e) | AMOUNT (f) |
|---|---|---|---|---|---|
| 1 | **Miscellaneous electrical renovations in Building 210 in accordance with attached Specifications and drawings, and Terms and Conditions.**<br><br>**Contractor shall commence work upon issuance of Notice-To-Proceed (NTP) by the Contracting Officer.**<br><br>**All work shall be completed, inspected, and accepted by the Government within 49 calendar days of the NTP effective date.**<br><br>**Wage Determination GA010078 will be incorporated with the purchase order for this project.** | 1 | Job | | |
| | | **The magnitude of this project is between $25,000 and $100,000.00.** | | | |

| 13. DISCOUNT FOR PROMPT PAYMENT | 10 CALENDAR DAYS % | 20 CALENDAR DAYS % | 30 CALENDAR DAYS % | CALENDAR DAYS % |
|---|---|---|---|---|

NOTE: Additional provisions and representations [ ] are [ ] are not attached.

| 14. NAME AND ADDRESS OF QUOTER (Street, city, county, State and ZIP code) | 15. SIGNATURE OF PERSON AUTHORIZED TO SIGN QUOTATION | 16. DATE OF QUOTATION |
|---|---|---|
| | 17. NAME AND TITLE OF SIGNER (Please print or type) | 18. TELEPHONE NO. (Include area code) |

# SIMPLIFIED ACQUISITION FOR CONSTRUCTION

(Firm Fixed-Price. NAICS 233320)

A. Please submit a Firm-Fixed-Price quote to Federal Law Enforcement Training Center, Procurement Division, Attn: C.D. Smithson, Building 93, Glynco, Georgia 31524.

B. **GOVERNMENT POINT OF CONTACT**:

Procurement, Building 93, C.D. Smithson, 912-267-3589 and Paulette Webster, 912-554-4613.
Facilities Management Division, Bill Holden, 912-267-5053.

C. **CONTRACT ADMINISTRATION DATA**

1. **Invoice** - At completion of all work, including submission of any reports, the original and 4 copies of the invoice shall be mailed to:

Federal Law Enforcement Training Center
Facilities Management Division
Attn: Bill Holden
Bldg. 200
Glynco, GA 31524

With a concurrent copy sent to:

Federal Law Enforcement Training Center
Procurement Division
Building 93
ATTN: C.D. Smithson
Glynco, Georgia 31524

The invoice shall cite the purchase order number, quantity, price, and total amount of the invoice.

2. **Work Hours** - Normal work hours are from 7:00 a.m. through 5:00 p.m., Monday through Friday, excluding legal holidays. Work is not permitted outside normal work hours, unless approved by the Contracting Officer. Request to work outside normal work hours must be submitted to the Contracting Officer through the COTR a minimum of 2 business days in advance of date on which such work is anticipated. The exclusion of work on Saturdays, Sundays, and holidays has been considered in computing the performance time of this purchase order. The following legal holidays are observed:

| | |
|---|---|
| New Year=s Day | January 1 |
| Martin Luther King=s Birthday | 3rd Monday in January |

| | |
|---|---|
| President=s Day | 3rd Monday in February |
| Memorial Day | Last Monday in May |
| Independence Day | July 4 |
| Labor Day | 1st Monday in September |
| Columbus Day | 2nd Monday in October |
| Veteran=s Day | November 11 |
| Thanksgiving Day | 4th Thursday in November |
| Christmas Day | December 25 |

3. All work shall be completed within 21 calendar days of award.

## H.4 Security Requirements

A. General Requirements: All personnel employed by the Contractor, including subcontractors, in the performance of this contract, or any representative of the Contractor entering the Federal Law Enforcement Training Center (FLETC) shall abide by all Center security regulations which may be in effect during the contract period. Any such individual(s) shall be subject to those checks which may be deemed necessary to ensure that no violations occur. The FLETC Security Office will accomplish a National Criminal Investigation Check (NCIC) on each person who will be employed on the FLETC under this contract. If the NCIC or any other check reveals that an individual does not meet FLETC security criteria, that individual will be denied access to the FLETC. The FLETC Security Specialties Division (SSD/PSB) will advise the Contractor when access to the FLETC is to be denied. Examples of offenses which will prevent access to the FLETC include but are not limited to: any felony convictions or habitual violations, any crimes against a police officer, and/or any conviction for distribution of illegal drugs. Any cost or time delay which the Contractor experiences in the contract due to an employee not being allowed entry onto the FLETC shall be the sole responsibility of the Contractor. Denial of access for any individual to the FLETC because of failure to meet FLETC security criteria shall not be subject to the Contract Disputes clause and cannot be the basis for any claim under the contract. The FLETC security regulations are found at FLETC Directive Number 71-01, Access Control, dated July 29, 1994. A summary of this Directive is **attached**.

B. Identification Badges.

1. All individuals working on the FLETC must obtain authorization to enter the FLETC through the issuance of identification badges by the FLETC. NO ONE WILL BE PERMITTED TO BEGIN WORK ON THE FLETC UNTIL AN IDENTIFICATION BADGE HAS BEEN ISSUED BY THE FLETC. The identification badge must be in the employee's possession at all times while the employee is on the FLETC.

2. After the contract is awarded, and at least five (5) working days prior to commencement of any work, the Contractor shall complete and turn into SSD, form FTC-SIS-9, Approval Form for Badges and Passes, (See **Attachments**). Information to be provided on this form for each employee who will work under this contract includes: name, current address, date of birth, and social security number. The Contractor shall complete or cause to be completed Sections A and B of the form. The Contractor Project Manager shall affix his/her signature in Section B of the form. No earlier than two (2) working days after the Contractor turns the request for badge(s) into the SSD, the Contractor shall contact the SSD to determine if the badge(s) are ready to be issued. The Contractor shall anticipate the processing time for the identification badges shall be two to four (2 - 4) working days from the time the request is submitted to the SSD until the Contractor's employees will be issued a

badge. Once the Contractor is advised that the identification badges are ready to be issued, the Contractor, along with the employees obtaining the badges, shall go to the Registration Office, Building 1. Each employee obtaining a badge must present a picture identification to Registration prior to the FLETC identification badge being issued.

C. Vehicle Pass. The SSD also issues vehicle passes.

1. Form FTC-SIS-01 (See **Attachments**), shall be used when requesting a vehicle pass. Only employees with a valid need to travel to and from the jobsite throughout the working day will be authorized to park at the construction jobsite. All other Contractor employees shall be assigned a designated parking area for all privately owned vehicles and it is the Contractor's responsibility to arrange necessary transportation from the designated parking area to the jobsite for its employees. Vehicles operated on Government property shall be maintained in safe operating condition. FLETC representatives, located in Building 1, shall issue a FLETC pass upon presentation of the following documents:

Completed Form FTC-SSD-01
Valid Driver's License
Valid Vehicle Registration Certificate
Proof of Insurance
FLETC Identification Badge

D. New Hires. Contractor personnel who are hired during the performance of the contract shall obtain identification badges prior to beginning work on the FLETC and shall follow the procedure outlined in subparagraph B.1 above. Any cost or time delay in the contract which the Contractor experiences because an employee does not have an identification badge and is not allowed to enter the FLETC, shall be the Contractor's own responsibility.

E. Lost Badge/Pass. A $10.00 replacement charge will be assessed against the Contractor for each identification badge or pass which must be replaced for other than excessive wear, name changes, or any reason which the employee/Contractor has no control. Lost or stolen badges shall be considered to be within the control of the employee. Any replacement charge will be assessed and paid by the Contractor prior to the replacement badge being issued. Payment shall be made via cash or company check made payable to the U.S. Treasury.

F. Contract Completion. The Contractor shall be responsible for the return of each identification badge and/or pass issued under this contract at the completion of the contract. No later than seven (7) working days after the final acceptance of the work under this contract or submission of the final invoice, whichever occurs first, all badges and passes, and decals shall be turned into the SSD. The Contractor shall return the identification badge and vehicle pass, if issued, to the SSD if an employee is terminated from this contract, voluntarily or otherwise, prior to contract completion, within three (3) working days of the termination. Final payment will not be authorized until the SSD has received all badges and passes which have been issued under this contract, including subcontractors. If the Contractor is unable to return all badges and passes, which were issued, a charge of $10.00 for each badge and pass will be assessed against the final payment.

## H.5 Job Site Security

Whenever facility security is breached by work performed under this contract, the Contractor will be responsible for providing temporary measures in order to assure security is maintained. For example, if the Contractor is renovating an entryway into a building, the Contractor must ensure that the

building is secure from intruders at that point of entry. The Contractor shall not leave the site unattended at anytime without making the job site and/or facility secure. The Contractor shall notify the Contracting Officer's Technical Representative prior to beginning work whenever a physical security breach will occur. If the contract requires the Contractor to provide a security guard at the site, the Contractor shall provide evidence that the guard is bonded.

**H.20 Time Extension for Unusually Severe Weather - Glynco, Georgia**

(a) This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with FAR clause 52.249-10 Default (Fixed-Price Construction) (Apr 1984)[49.504( c)(1)]. The following table reflects the climatological data from the South Carolina Department of Natural Resources, Southeast Regional Climate Center, for the Brunswick FAA Airport/Glynco Jetport.

| | AVG INCHES RAIN/MONTH | MAX / MIN INCHES RAIN | 1-DAY MAX RAINFALL | AVG HIGH | AVG LOW | MAX /MIN TEMP. |
|---|---|---|---|---|---|---|
| JAN | 3.24 | 9.35 / 0.18 | 3.88 | 60.6 | 42.4 | 83 / 6 |
| FEB | 3.52 | 8.39 / 1.17 | 3.92 | 62.7 | 44.7 | 85 / 19 |
| MAR | 3.90 | 10.71 / 0.46 | 4.26 | 68.5 | 50.6 | 90 / 22 |
| APR | 2.77 | 9.26 / 0.20 | 5.33 | 75.4 | 57.8 | 94 / 36 |
| MAY | 3.22 | 10.31 / 0.30 | 3.31 | 82.0 | 65.9 | 100 / 46 |
| JUN | 4.98 | 12.37 / 0.75 | 8.19 | 87.1 | 72.2 | 103 / 52 |
| JUL | 5.39 | 12.38 / 1.02 | 5.77 | 89.7 | 74.4 | 104 / 66 |
| AUG | 6.35 | 18.16 / 1.16 | 12.36 | 88.6 | 74.1 | 100 / 62 |
| SEP | 7.23 | 21.19 / 0.09 | 9.82 | 84.6 | 71.2 | 97 / 49 |
| OCT | 4.02 | 11.33 / 0.00 | 7.27 | 77.1 | 61.4 | 95 / 37 |
| NOV | 2.44 | 7.38 / 0.07 | 5.86 | 69.5 | 51.6 | 89 / 21 |
| DEC | 2.72 | 7.92 / 0.01 | 2.67 | 62.7 | 53.9 | 84 / 12 |

(Data from South Carolina Department of Natural Resources, Southeast Regional Climate Center. Period of Record 1948 - 1995.)

(b) The above schedule of anticipated adverse weather will constitute the base line for monthly (or portion thereof) weather time evaluations. Upon acknowledgment of the Notice to Proceed and continuing throughout the contract on a monthly basis, actual adverse weather days will be recorded on a calendar day basis (including weekends and holidays) and compared to the monthly anticipated adverse weather in paragraph (a) above. For purposes of paragraph (b), the term Aactual adverse weather days@ shall include days impacted by actual adverse weather days.

(c) The number of actual adverse weather days shall be calculated chronologically from the first to the last day in each month. Once the number of actual adverse weather days anticipated in paragraph (a) above have been incurred, the Contracting Officer will examine any subsequently occurring adverse weather days to determine whether a Contractor is entitled to a time extension. Adverse weather days occurring subsequently must prevent work for 50 percent or more of the Contractor's work day and delay work critical to the timely completion of the project. The Contracting Officer will convert any delays meeting the above requirements to calendar days and issue a modification in accordance with the clause referred to in paragraph (a) above.

(d) The Contractor's schedule must reflect the above anticipated adverse weather delays on all weather dependent activities.

**52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998) [52.107(b)]** This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at these addresses: http://arnet.gov/far **OR** http://www-far.npr.gov/references/References.html.

**1. Clauses and Provisions Incorporated by Reference:**

52.202-1 Alt 1 Definitions (Oct. 95) Alt. I (Apr. 84) [2.201]
52.204-6 Data Universal Numbering System (DUNS) Number (Apr 98)[4.603(a)] [applicable over $25,000.00]
52.219-6 Notice of Total Small Business Set-Aside (Jul 96) [19.508(c)]
52.222-3 Convict Labor (Aug 96) [22.202]
52.222-6 Davis-Bacon Act (Feb1995)[22.407(a)]
52.222-21 Prohibition of Segregated Facilities (Feb 99) [22.810(a)(1)]
52.222-23 Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction (Feb 99) [22.810(b)] This provision is completed as follows:
Paragraph (b):

| GOALS FOR MINORITY PARTICIPATION FOR EACH TRADE | GOALS FOR FEMALE PARTICIPATION FOR EACH TRADE |
|---|---|
| 22.2% | 6.9% |

Paragraph (e): The Acovered area@ is Glynco, Glynn County, Georgia.
52.222-26 Equal Opportunity (Feb 99) [22.810(e)]
52.222-35 Affirmative Action for Disabled Veterans and Veterans of the Vietnam Era (APR 98) [22.1308(a)(1)]
52.222-36 Affirmative Action for Workers with Disabilities (June 98) [22.1408(a)]
52.222-37 Employment Reports on Disabled Veterans and Veterans of the Vietnam Era (Jan 99) [22.1308(b)]
52.223-5 Pollution Prevention and Right-to-Know Information (Apr 98) [23.1005]
52.223-6 Drug-Free Workplace (Jan 97)[23.505] [applicable if awarded to an individual or over $25,000.00]
52.225-12 Notice of Buy American Act Requirement - Construction Materials (May 97) [25.207(b)(a)]
52.225-13 Restrictions on Certain Foreign Purchases (Feb 00) [25.1103(a)] [applicable over $25,000.00]
52.232-1 Payments (Apr 84) [32.111(a)(1)]
52.232-27 Prompt Payment for Construction contracts (Jun 97)[32.908(b)]
52.232-33 Payment by Electronic Funds Transfer – Central Contractor Registration (May 99)

[32.1110(a)(1)]
52.233-1 Disputes (Dec 98) [33.215]
52.233-3 Protest after Award (Aug 96) [33.106(b)]
52.236-1 Performance of Work by the Contractor (Apr 84)[36.501(b)]
52.236-2 Differing Site Conditions (Apr 84) [36.502]
52.236-3 Site Investigation and Conditions Affecting the Work (Apr 84) [36.503]
52.236-5 Material and Workmanship (Apr 84)[36.505]
52.236-6 Superintendence by the Contractor (Apr 84)[36.506]
52.236-7 Permits and Responsibilities (Nov91)[36.507]
52.236-8 Other Contracts (Apr 84) [36.508]
52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements (Apr 84) [36.509]
52.236-12 Cleaning Up (Apr 84) [36.512]
52.236-13 Accident Prevention (Nov 91) [36.513]
52.236-14 Availability and Use of Utility Services (Apr 84)[36.514]
52.242-14 Suspension of Work (Apr 84) [42.1305(a)]
52.243-5 Changes and Changed Conditions (Apr 84) [43.205(e)]
52.244-6 Subcontracts for Commercial Items and Commercial Components (Oct 98) [44.403]
52.246-1 Contractor Inspection Requirements (Apr 84) [46.301]
52.249-1 Termination for Convenience of the Government (Fixed-Price) (Short Form) (Apr 84) [49.502(a)(1)]
52.249-10 Default (Fixed-Price Construction) (Apr 1984)[49.504( c)(1)]
52.253-1 Computer Generated Forms (Jan 91) [53.111]

## 2. Clauses and Provisions in full text:

**52.236-4 Physical Data (APR 84)[36.504]**

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by N/A {*insert **N/A** or a description of investigation methods used, such as surveys, auger borings, core borins, test pits, probings, test tunnels.}*

(b) Weather conditions: **See provision at H.20, Time Extension for Unusually Severe Weather.**

(c) Transportation facilities N/A *{insert **N/A** or a summary of transportation facilities providing access from the site, including information about their availability and limitations.}*

(d) N/A

## 3. The following (FULL TEXT) must be completed by the offeror and submitted with the quote:

**52.204-3 Taxpayer Identification (Oct 98) [4.905]**

(a) Definitions.

"Common parent," as used in this solicitation provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the IRS. If the resulting contract is subject to the reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) Taxpayer Identification Number (TIN).

☐ TIN:_____.

☐ TIN has been applied for.

☐ TIN is not required because:

☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

☐ Offeror is an agency or instrumentality of a foreign government;

☐ Offeror is an agency or instrumentality of a Federal Government;

☐ Other. State basis._____

(e) Type of organization.

☐ Sole proprietorship;

☐ Partnership;

☐ Corporate entity (not tax-exempt):

☐ Corporate entity (tax-exempt):

☐ Government entity (Federal, State, or local);

☐ Foreign government;

☐ International organization per 26 CFR 1.6049-4;

☐ Other _____.

(f) Common Parent.

☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

☐ Name and TIN of common parent:
Name_____
TIN_____

**52.219-1 Small Business Program Representations** **(OCT 00) [19.307(a)(1)]**

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 23320.

(2) The small business size standard is 27.5 Million.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it ☐ is, ☐ is not a small business concern.

(2) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents, for general statistical purposes, that it ☐ is, ☐ is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) [Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a women-owned small business concern.

(4) [Complete only if the offeror represented itself as a small business concern in

paragraph (b)(1) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a veteran-owned small business concern.

(5) [Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.] The offeror represents as part of its offer that it ☐ is, ☐ is not a service-disabled veteran-owned small business concern.

(c) Definitions. As used in this provision--

"Service-disabled veteran-owned small business concern"--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern" means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (a) of this provision.

"Veteran-owned small business concern" means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern" means a small business concern--

(1) Which is at least 51 percent owned by one or more women or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more

women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice. (1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(3) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

**52.219-19 Small Business Concern Representation for the Small Business Competitiveness Demonstration Program (Jan 97) [19.1007(a)]**

(a) *Definitions.* AEmerging small business@ as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the standard industrial classification code assigned to a contracting opportunity.

(b) [Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.] The Offeror " is, " is not an emerging small business.

(c) [Complete only if the Offeror is a small business or an emerging small business, indicating its size range.] Offeror=s number of employees for the past 12 months [check this column if size standard stated in solicitation is expressed in terms of number of employees] or Offeror=s average annual gross revenue for the last 3 fiscal years [check this column if size standard stated in solicitation is expressed in terms of annual receipts]. [Check one of the following.]

| No. of Employees | Avg. Annual Gross Revenues |
|---|---|
| _____ 50 or fewer | _____ $1 million or less |
| _____ 51 - 100 | _____ $1,000,001 - $2 million |
| _____ 101 - 250 | _____ $2,000,001 - $3.5 million |
| _____ 251 - 500 | _____ $3,500,001 - $5 million |

_____ 501 - 750
_____ 751 - 1,000
_____ Over 1,000

_____ $5,000,001 - $10 million
_____ $10,000,001 - $17 million
_____ Over $17 million

**52.222-22 Previous Contracts and Compliance Reports (Feb 99) [22.810(a)(2)]**

The offeror represents that --

(a) It “ **has**, “ **has not** participated in a previous contract or subcontract subject the Equal Opportunity clause of this solicitation;

(b) It “ **has**, “ **has not**, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of Provision)

## SECTION C - DESCRIPTION/SPECIFICATIONS/WORK STATEMENT

### 1. SCOPE

A. Requirements of this contract include the furnishing of all labor, equipment and materials to perform the designated work at The Federal Law Enforcement Training Center. The work shall include all changes and repairs indicated thereto; Build computer classroom in room E-18, and build radio classroom in D-14 in Building 210, as set forth in the "Specifications and Bid Forms, Department of the Treasury, Federal Law Enforcement Training Center, Glynco, Georgia 31524", and as shown on Drawings 01-210-5529, sheets 1 & 2.

B. Room E-18

A. Remove the walls, windows, frames, and ceiling (if necessary) in left rear side of room per drawing. Repair walls as required to return to original condition. Repair existing ceiling in the area where the walls were removed to match the existing ceiling as required. In this area the floor is solid concrete underneath and not computer flooring.

B. Remove the existing passage doors and frames. Patch with studs and gypsum board (both sides) the existing openings in the walls where the doors were removed. Prime and paint patched areas.

C. Build a new wall and install door to create server room in the area on the right side of the room.

D. Repaint all of the walls with two-coat paint system, the exact color shall be determined by occupant at a later date.

E. Install new government furnished carpet squares to match the existing carpet in area where room/walls were demolished. Install four (4) government furnished light fixtures connected to the existing light switching circuits. The new lights shall follow the existing lighting pattern.

F. Remove the existing 50 amp electrical panel in the room. Install new 3 phase, 200 amp, 42-circuit MLO electrical panel with 100 amp feeder breaker. Install new conduit and wiring of the appropriate size for the new panel. This shall feed from the Square D, type NA1B, 225-amp 120-240 volt panel across the hall from E-18.

G. Install two duplex wall mounted electrical receptacles at each location shown on drawing. Install one LAN cable connection at each wall mounted electrical outlet that shall terminate at the LAN server. New wall mounted electrical boxes shall be mounted 12” AFF.

H. Install new American electric floor boxes (M# AFM-4-GRY) in locations shown on drawing. Each floor box shall have one duplex receptacle and four LAN cable connections. All new electrical power shall come from the new electrical panel in the room. Carpet shall be cut and inserted into each floor box frame. Floor boxes shall be located as close to the center of the access flooring squares as possible.

I. On the left side of the room in the solid floor area the electrical and the LAN cabling shall be mounted on top of the floor.

J. All LAN cabling shall be routed under the flooring to the area where the network server shall be placed (See Drawing for routing). A minimum of 10' extra cabling shall be allowed at the network server end for punch down and routing in cabling rack/cabinet. All LAN cabling shall be CAT-5 cabling, tested, certified and cable certification report issued prior to acceptance of cabling. All LAN cabling shall be labeled on each end with corresponding numbering.

Room D-14:

A. Build 15" high raised platform with one step in location shown on drawing. The raised platform and step shall have ¾" plywood decking and 2x8" floor joists (minimum). The flooring in this room is computer raised flooring. Raised platform shall have access hatch/door for installation of cabling to instructor stations.

B. Relocate the existing electrical floor boxes as required to line-up with radio station layout shown on drawing. Install new electrical floor boxes as shown on drawing.

C. Install coax cabling from each work station to the corresponding instructor station on the raised platform.

**Coordinate access to all locations with Project manager or Con-Rep prior to commencement of work.**

C. Quality Control/assurance:

1. The superintendent shall be responsible for assuring that all work be performed in strict conformance with the terms of the contract and as specified herein.
2. In addition to the Scope of Work, Drawings, and Line Item Work Sheets, all work specified herein shall conform to applicable Divisions of Section C.

D. Materials:

1. All products or materials shall conform to the requirements of applicable divisions and sections of the contract.

   a. All new wiring shall be THHN insulated wiring.

   b. Floor boxes shall be American Electric M# AFM-4-GRY or prior COTR approved equal.

## 2.DEFINITIONS

A. The term "Contracting Officer" shall mean the person who executed this contract on behalf of the Federal Law Enforcement Training Center (FLETC).

B. The term "Contractor" refers to the individual or firm who bids this contract and enters into a contract with the U.S. Government (FLETC) for this work.

C. The term "Subcontractor" for the purpose of this requirement shall mean the individual or firm with whom the bidder proposed to enter into a subcontract for manufacturing, fabricating, installing or otherwise performing work under this contract pursuant to the project specifications applicable to any category included on the list.

D. The term "Subcontract" includes in addition to a two-signature document all transactions resulting from acceptance of offers by awards or notices of awards; agreements and job orders; letter agreements; letters of intent; and orders, such as purchase orders, under which the subcontract becomes effective by written acceptance or performance. It also includes modifications thereto.

E. The term "Provide" shall mean to furnish and install.

## 3. LIMITS OF WORK

A. Hours of work.

(1) It shall be acknowledged and understood by the Contractor that all work to be accomplished under this contract shall be performed during normal working hours of the Center unless otherwise specified.

(2) The normal working hours shall be 7:00 a.m. to 5:00 p.m., Monday through Friday.

(3) Work performed by the Contractor outside the normal working hours shall be at no additional expense to the Government.

## 4. CONSTRUCTION DIVISIONS AND SECTIONS

### SPECIFICATIONS

## DIVISION 16

# SECTION 01010

# SUMMARY OF THE WORK

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS:

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division-1 Specification sections, apply to work of this section.

### 1.02 PROJECT/WORK IDENTIFICATION:

A. General: Project name is " Renovate Classrooms in Building 210, Federal Law Enforcement Training Center, Glynco, Georgia" as shown in Contract Documents, Drawings and Specifications.

B. Summary by References: Work of the Contract can be summarized by references to the Contract, General Conditions, Supplementary Conditions, Specification Sections, Drawings, addenda and modifications to the contract documents issued subsequent to the initial printing of this project manual and including but not necessarily limited to printed material referenced by any of these. It is recognized that work of the Contract is also unavoidably affected or influenced by natural phenomenon including weather conditions and other forces outside the contract documents.

### 1.03 DESCRIPTION OF WORK:

The contractor shall provide material, labor, equipment and supervision to renovate the classrooms in building 210. See Section C, work statement for exact details and locations.

### 1.04 QUALITY CONTROL/ASSURANCE:

A. The superintendent shall be responsible for assuring that all work be performed in strict conformance with the terms of the contract and as specified herein.

B. In addition to the Scope of Work, Drawings, and Line Item Work Sheets, all work specified herein shall conform to applicable Divisions of Section C.

### 1.05 CONTRACTOR USE OF PREMISES:

A. General: During the entire construction period the Contractor shall have limited general use of the premises for construction operations, the classrooms maybe in use at times.

B. General: The Contractor shall limit his use of the premises to the work indicated, so as to allow for Government occupancy and use by the public.

1. Use of the Site: Confine operations at the site to the areas permitted under the Contract. Portions of the site beyond areas on which work is indicated are not to be disturbed. Conform to site rules and regulations affecting the work while engaged in project construction.

2. Keep existing driveways and entrances serving the premises clear and available to the Government and its employees at all times. Do not use these areas for parking or storage of materials.

3. Do not unreasonably encumber the site with materials or equipment.

4. Lock automotive type vehicles, such as passenger cars and trucks and other mechanized or motorized construction equipment, when parked and unattended, so as to prevent unauthorized use. do not leave such vehicles or equipment unattended with the motor running or the ignition key in place.

## 1.06 ALTERATIONS AND COORDINATION:

A. General: The work of this Contract includes coordination of the entire work of the project, including preparation of general coordination drawings, diagrams and schedules, and control of site utilization, from beginning of construction activity through project close-out and warranty periods.

## PART 2 - PRODUCTS N/A

## 2.01 MATERIALS

A. All products or materials shall conform to the requirements of applicable divisions and sections of the contract.

## PART 3 - EXECUTION

## 3.01 SCHEDULE OF WORK:

A. The contractor shall provide the COTR with a schedule for sequence of work. No work shall begin without authority from the Contracting Officer and coordinated with the COTR.

## 3.02 INSPECTION:

A. All work will be inspected by the Government and accepted prior to final payment.

B. Request for inspection shall be made in writing to the COTR. The COTR will notify the contractor of the scheduled date and time for the inspection.

## 3.03 CLEAN-UP:

A. Remove and dispose of all construction debris off center and restore disturbed areas to original conditions.

## 3.04 SAFETY:

A. Contractor shall comply with all applicable provisions of "OSHA" regulations and other contract requirements and related work.

B. Contract Documents: Indicate the work of the Contract and related requirements and conditions that have an impact on the project. Related requirements and conditions that are indicated on the Contract Documents include, but are not necessarily limited to the following:

1. Existing site conditions and restrictions on use of the site.

2. Alternations and coordination with existing work.

**END OF SECTION 01010**

# SECTION 01710

# CLEANING

## PART 1 - GENERAL

### 1.1 DESCRIPTION:

A. Execute cleaning, during progress of the work, and at completion of the work as required by the General Conditions.

B. Related requirements specified in other sections:

1. Cleaning for specific products or work.

2. The specification section for that work.

### 1.2 DISPOSAL REQUIREMENTS:

A. Conduct cleaning and disposal operations to comply with:

1. All federal, state and local Anti-pollution codes, ordinances, and regulations.

## PART 2 - PRODUCTS

### 2.1 MATERIALS:

A. Use only those cleaning materials which will not create hazards to health or property and which will not damage surfaces.

B. Use only those cleaning materials and methods recommended by manufacturer of the surface material to be cleaned.

## PART 3 - EXECUTION

### 3.1 DURING CONSTRUCTION:

A. Execute periodic cleaning to keep work, site and adjacent properties free from accumulations of waste materials, rubbish and wind blown debris, resulting from construction operations.

B. Provide on-site containers for the collection of waste materials, debris and rubbish.

C. Remove waste materials, debris and rubbish from the site periodically and dispose of at legal disposal areas away from the site.

## 3.2 DUST CONTROL:

A. Schedule operations so that dust and other contaminants resulting from cleaning process will not fall on wet or newly coated surfaces.

## 3.3 FINAL CLEANING:

A. Prior to final completion, or Contracting Officer occupancy, Contractor shall conduct an inspection of sight-exposed interior and exterior surfaces and all work areas to verify that the entire work is clean.

END OF SECTION 01710

# SECTION 02220

# SITE DEMOLITION

## PART 1 GENERAL

### 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by the basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

| | |
|---|---|
| ANSI A10.6 | (1990) Demolition Operations |

AIR-CONDITIONING AND REFRIGERATION INSTITUTE (ARI)

| | |
|---|---|
| ARI Guideline K | (1990) Containers for Recovered Fluorocarbon Refrigerants |

CODE OF FEDERAL REGULATIONS (CFR)

| | |
|---|---|
| 40 CFR 61-SUBPART M | National Emission Standard for Asbestos |
| 40 CFR 82 | Protection of Stratospheric Ozone; Refrigerant Recycling |
| 49 CFR 173.301 | Shipment of Compressed Gas Cylinders |

DEFENSE LOGISTICS AGENCY (DLA)

| | |
|---|---|
| DLA 4145.25 | Storage and Handling of Compressed Gases and Liquids in Cylinders |

DEPARTMENT OF DEFENSE (DOD)

| | |
|---|---|
| DOD 4000.25-1-M | Requisitioning and Issue Procedures |

MILITARY STANDARDS (MIL-STD)

| | |
|---|---|
| MIL-STD-129 | (Rev. M) Marking for Shipment and Storage |

### 1.2 GENERAL REQUIREMENTS

Do not begin demolition until authorization is received from the Contracting Officer. Remove rubbish and debris from the project site; do not allow accumulations inside or outside the building. Store materials that cannot be removed daily in areas specified by the Contracting Officer.

1.3 DEFINITIONS

3.1.1 Class I and Class II Ozone Depleting Substance (ODS)

Class I and Class II ODS are defined in Section, 602(a) and (b), of The Clean Air Act.

1.4 SUBMITTALS

Submit the following in accordance with section entitled "Submittal Procedures."

4.1.1 SD-08, Statements

1. Demolition plan G

2. Notification of demolition and renovation

Submit proposed salvage, demolition and removal procedures to the Contracting Officer for approval before work is started.

4.1.1.2 Required Data

Demolition plan shall include procedures for careful removal and disposition of materials specified to be salvaged, coordination with other work in progress, a disconnection schedule of utility services, a detailed description of methods and equipment to be used for each operation and of the sequence of operations. Include statements affirming Contractor inspection of the existing roof deck and its suitability to perform as a safe working platform or if inspection reveals a safety hazard to workers, state provisions for securing the safety of the workers throughout the performance of the work.

4.1.2 SD-18, Records

1. Receipts

4.2.1.2 Receipts

Submit a shipping receipt or bill of lading for all containers of ozone depleting substance (ODS) shipped to the Defense Depot, Richmond, Virginia.

1.5 REGULATORY AND SAFETY REQUIREMENTS

Comply with federal, state, and local hauling and disposal regulations. In addition to the requirements of the "Contract Clauses," safety requirements shall conform to ANSI A10.6.

1.6 DUST AND DEBRIS CONTROL

Prevent the spread of dust and debris and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution.

## 1.7 PROTECTION

### 7.1.1 Traffic Control Signs

Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Notify the Contracting Officer prior to beginning such work.

### 7.1.2 Existing Work

Protect existing work, which is to remain in place, be reused, or remain the property of the Government. Repair items which are to remain which are to be salvaged and which are damaged during performance of the work to their original condition, or replace with new. Do not overload pavements to remain.

### 7.1.3 Facilities

Protect electrical and mechanical services and utilities. Where removal of existing utilities and pavement is specified or indicated, provide approved barricades, temporary covering of exposed areas, and temporary services or connections for electrical and mechanical utilities.

## 1.8 BURNING

Burning will not be permitted.

## 1.9 RELOCATIONS

Perform the removal and reinstallation of relocated items as indicated with workmen skilled in the trades involved. Repair items to be relocated which are damaged or replace damaged items with new undamaged items as approved by the Contracting Officer.

# PART 2 PRODUCTS

Not used.

# PART 3 EXECUTION

## 3.1 EXISTING FACILITIES TO BE REMOVED

### 3.1.1 Structures

Remove indicated existing structures 3 feet below finished grade. Remove interior walls and partitions 3 feet below grade. Break up basement slabs to permit drainage.

### 3.1.2 Utilities and Related Equipment

Remove existing utilities, as indicated and terminate in a manner conforming to the nationally recognized code covering the specific utility and approved by the Contracting Officer. Remove meters and related equipment and deliver to a location in accordance with instructions of the Contracting Officer. If utility lines are encountered that are not shown on drawings, contact the Contracting Officer for further instructions.

### 3.1.3 Paving and Slabs

Remove sawcut concrete and asphaltic concrete paving and slabs including aggregate base as indicated to a depth of 12 inches below new finish grade. Provide neat sawcuts at limits of pavement removal as indicated.

### 3.1.4 Air Conditioning Equipment

Remove air conditioning equipment without releasing chlorofluorocarbon refrigerants to the atmosphere in accordance with the Clean Air Act Amendment of 1990.

Recover all refrigerants prior to removing air conditioning equipment and dispose of in accordance with the paragraph entitled "Disposal of Ozone Depleting Substance (ODS)." Turn in salvaged Class I ODS refrigerants as specified in paragraph, "Salvaged Materials and Equipment."

### 3.1.5 Cylinders and Canisters

Remove all fire suppression system cylinders and canisters and dispose of in accordance with the paragraph entitled "Disposal of Ozone Depleting Substance (ODS)."

## 3.2 FILLING

Fill holes, septic tanks and other hazardous openings in accordance with local, state and federal guidelines.

## 3.3 DISPOSITION OF MATERIAL

### 3.3.1 Title to Materials

Except where specified in other sections, all materials and equipment removed, and not reused, shall become the property of the Contractor and shall be removed from Government property. Title to materials resulting from demolition, and materials and equipment to be removed, is vested in the Contractor upon approval by the Contracting Officer of the Contractor's demolition and removal procedures, and authorization by the Contracting Officer to begin demolition. The Government will not be responsible for the condition or loss of, or damage to, such property after contract award. Materials and equipment shall not be viewed by prospective purchasers or sold on the site.

3.3.2 Reuse of Materials and Equipment

Remove and store materials and equipment indicated to be reused or relocated to prevent damage, and reinstall as the work progresses.

3.3.3 Salvaged Materials and Equipment

Remove materials and equipment that are indicated to be removed by the Contractor and that are to remain he property of the Government, and deliver to a storage site, as directed within 2 miles of the work site.

Remove and capture all Class I ODS refrigerants in accordance with the lean Air Act Amendment of 1990, and turn in to the Government as directed by the Commanding Officer.

3.3.4 Disposal of Ozone Depleting Substance (ODS)

Prevent discharge of Class I and Class II ODS to the atmosphere. Place recovered ODS in cylinders meeting ARI Guideline K suitable for the type ODS (filled to no more than 80 percent capacity) and provide appropriate labeling. Recovered ODS shall be removed from Government property and dispose of in accordance with 40 CFR 82. Products, equipment and appliances containing ODS in a sealed, self-contained system (e.g. residential refrigerators and window air conditioners) shall be disposed of in accordance with 40 CFR 82.

3.3.4.1 Special Instructions

Each container shall have in it no more than one type of ODS. A warning/hazardous label shall be applied to the containers in accordance with Department of Transportation regulations. All cylinders including but not limited to fire extinguishers, spheres, or canisters containing an ODS shall have a tag with the following information:

1. Activity name and unit identification code

2. Activity point of contact and phone number

3. Type of ODS and pounds of ODS contained

4. Date of shipment

5. Naval stock number (for information, call (804) 279-4525).

3.3.4.2 Fire Suppression Containers

Fire suppression system cylinders and canisters with electrical charges or initiators shall be deactivated prior to shipment. Also, safety caps shall be used to cover exposed actuation mechanisms and discharge ports on these special cylinders.

3.3.5 Transportation Guidance

Shipment of all ODS containers shall be in accordance with MIL-STD-129, DLA 4145.25 (also referenced one of the following: Army Regulation 700-68, Naval Supply Instruction 4440.128C, Marine Corps Order 10330.2C, and Air Force Regulation 67-12), 49 CFR 173.301, and DOD 4000.25-1-M.

3.4 CLEANUP

3.4.1 Debris and Rubbish

Remove and transport debris and rubbish in a manner that will prevent spillage on pavements, streets or adjacent areas. Limit to 3/8 cubic yard capacity buggies or other conveyances used on roofs and within the building to transport removed debris. Clean up spillage from pavements, streets and adjacent areas.

END OF SECTION

# SECTION 06100

# ROUGH CARPENTRY

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work included: Provide wood, bolts, screws, framing anchors and other rough hardware, and other items needed, and perform rough carpentry for the construction shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

### 1.2 QUALITY ASSURANCE

A. Use skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

### 1.3 PRODUCT HANDLING

A. Protection:

1. Deliver the materials to the job site and store, in a safe area, out of the way of traffic, and shored up off the ground surface.

2. Identify framing lumber as to grades, and store each grade separately from other grades.

3. Protect metals with adequate waterproof outer wrapping.

4. Use extreme care in off loading of lumber to prevent damage, splitting, and breaking of materials.

## PART 2 - PRODUCTS

### 2.1 GRADE STAMPS

A. Identify framing lumber by the grade stamp of the agency approved in advance by the contracting officer.

B. Identify plywood as to species, grade, and glue type by the stamp of the American Plywood Association.

C. Identify other materials of this Section by the appropriate stamp of the agency approved in advance by the contracting officer.

### 2.2 MATERIALS

A. Provide materials in the quantities needed for the Work shown on the Drawings, and meeting or exceeding the following standards of quality:

1. Horizontal framing members: Douglas Fir-Hemlock, Table 1, Construction grade.

2. Vertical framing members: Douglas Fir-Hemlock, Table 1, Standard grade.

3. Plywood:

   a. Parapet Sheathing: Structural II, C-C, exterior; or standard sheathing with exterior glue.

   b. Telephone backboard: 3/4" thick, A-D, group 1, interior.

4. Building paper: Kraft paper complying with Fed Spec UU-B-790a.

5. Wood preservative: Ammoniacal copper arsenite, or 5% solution of pentachlorophenol.

6. Rough hardware:

   a. Steel items:
      (1) Comply with ASTM A7 or ASTM A36.
      (2) Use galvanized at exterior locations.

7. Exterior gypsum sheathing: Butt edge, 1/2" thick, complying with ASTM C630.

### 2.3 OTHER MATERIALS

A. Provide other materials not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the COTR.

## PART 3 - EXECUTION

### 3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

### 3.2 DELIVERIES

A. Stockpile materials in sufficient quantities in advance of there need to assure their availability in a timely manner for this Work.

B. Make as many trips to the job site as are needed to deliver materials of this Section in a timely manner to ensure orderly progress of the Work.

### 3.3 COMPLIANCE

A. Do not permit materials not complying with the provisions of this Section to be brought onto or to be stored at the job site.

B. Promptly remove non-complying materials from the job site and replace with materials meeting the requirements of this Section.

### 3.4 WORKMANSHIP

A. Produce joints that are tight, true, and well connected, with members assembled in accordance with the Drawings and with pertinent codes and regulations.

B. Selection of lumber pieces:

1. Carefully select the members.
2. Select individual pieces so that knots and obvious defects will not interfere with placing bolts and will allow making of proper connections.
3. Cut out and discard defects, which render a piece unable to serve its intended function.

4. The contracting officer may reject lumber, whether or not it has been installed, for excessive warp, twist, bow, crook, mildew, fungus, or mold, as well as for improper

cutting and fitting.

C. Do not shim any framing component.

## 3.5 BLOCKING AND BRIDGING

A. Install blocking as required to support items of finish and to cut off concealed draft openings, both vertical and horizontal, between ceiling and floor areas.

## 3.6 ALIGNMENT

A. On framing members to receive a finished surface, align the finish subsurface to vary not more than 1/8" from the plane of surfaces of adjacent furring and framing members.

## 3.7 INSTALLATION OF PARAPET PLYWOOD SHEATHING

A. Placement:

1. Place plywood with face grain perpendicular to supports and continuously over at least two supports, except where otherwise shown on the Drawings.

2. Center joints accurately over supports, unless otherwise shown on the Drawings.

B. Protect plywood from moisture by use of waterproof coverings until the plywood in turn has been covered with the next succeeding component or finish.

## 3.8 FASTENING

A. Bolting:

1. Drill holes 1/16" larger in diameter than the bolts being used.

2. Drill straight and true from one side only.

3. Do not bear bolts threads on wood, but use washers under head and nut where both bear on wood, and use washers under all nuts.

B. Screws:

1. For lag screws and wood screws, prebore holes same diameter as root of threads, enlarging holes to shank diameter for length of shank.

# SECTION 08211

# FLUSH WOOD DOORS

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work included: Provide flush wood doors, complete in place with finish hardware installed, where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division l of these Specifications.

### 1.2 QUALITY ASSURANCE

A. Use skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. In addition to complying with pertinent codes and regulations of governmental agencies having jurisdiction, comply with:

1. "Contracting Architectural Woodwork Quality Standards" of the Architectural Woodwork Institute, for the grade or grades specified.

### 1.3 SUBMITTALS

A. Product data: Within 30 calendar days after the Contractor has received the contracting officer's Notice to Proceed, submit:

1. Materials list of items proposed to be provided under this Section;

2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;

1.4 PRODUCT HANDLING

A. Delivery:

1. Deliver doors to site after plaster and cement are dry, and after the building has reached average prevailing humidity of its locality.

2. Deliver pre-finished doors in manufacturer's original containers, clearly marked with manufacturer's name, brand name, size, thickness, and identifying symbol on the covering.

3. Seal all four edges of unfinished doors when delivered to the job site.

B. Storage:

1. Stack flat on 2" x 4" lumber, laid 12" from ends and across center.

2. Under bottom door and over top of stack, provide plywood or corrugated cardboard to protect door surfaces.

3. Store doors in area where there will be no great variations in heat, dryness, and humidity.

C. Do not drag doors across one another; lift doors and carry them into position.

PART 2 - PRODUCTS

2.1 GENERAL

A. Provide flush wood doors of the types, designs, and thicknesses shown on the Drawings, labeled or non-labeled as indicated and required, and in solid core.

B. Grade: Except as may be shown otherwise on the Drawings, fabricate the work of this Section to "custom grade" standards of the referenced organization.

C. Species:

1. Provide premium grade, rotary cut Birch faces for stained finish.

2. Where paint grade or opaque finish are called for on the drawings, provide Birch or Beech faces for opaque finishes.

D. Site finish or mill finish wood doors in accordance with provisions of Section 09900 of these Specifications.

## PART 3 - EXECUTION

### 3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

### 3.2 INSTALLATION

A. Fitting and machining:

1. Unless doors are completely fitted and machined at the mill, fit them for width by planing and fit them for height by sawing:

   a. Bottom: 1/2" clearance maximum unless noted otherwise.

   b. Top: 1/8" clearance maximum.

   c. Lock edge and hinge edge: Bevel 1/8" in 2" maximum.

Machine doors for hardware in accordance with recommendations of the hardware manufacturers, as those recommendations have been approved by the Contracting Officer.

B. Replace or rehang doors which are hinge-bound and do not swing or operate freely.

END OF SECTION - FLUSH WOOD DOORS

# SECTION 09110

# METAL STUD SYSTEM

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work included: Provide metal studs and accessories as indicated on the Drawings, as specified herein, and as needed for a complete and proper installation.

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.

### 1.2 QUALITY ASSURANCE

A. Use skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. In addition to complying the pertinent codes and regulations of governmental agencies having jurisdiction, comply with pertinent recommendations contained in "Specifications for Metal Lathing and Furring" published by the Metal Lath/ Steel Framing Association.

### 1.3 SUBMITTALS

A. Product data: Within 30 calendar days after the Contractor has received the contracting officer's Notice to Proceed, submit:

1. Materials list of items proposed to be provided under this Section.

2. Manufacturers' specifications and other data needed to prove compliance with the specified requirements.

3. Manufacturers' recommended installation procedures which, when approved by the contracting officer, will become the basis for accepting or rejecting actual installation procedures used on the Work.

## PART 2 - PRODUCTS

### 2.1 METAL STUDS AND ACCESSORIES

A. Meet or exceed minimum requirements of Fed Spec QQ-S-698 and Fed Spec QQ-S-775d, class d, for the item and use intended.

B. Metal studs:

1. At interior metal stud partitions, unless otherwise shown on the Drawings, provide standard punched steel studs of the size and gauges shown on the drawings, either hot-dip galvanized or factory pre-painted.

2. Use only one type throughout the Work, unless otherwise shown on the Drawings or specifically approved in advance by the contracting officer.

3. At exterior metal stud walls, unless otherwise shown on the drawings, provide steel studs of size and gauges shown on drawings, either hot-dip galvanized or factory pre-painted.

C. Accessories: Provide all accessories including, but not necessarily limited to, tracks, clips, anchors, fastening devices, sound attenuation pencil rods and resilient clips, and other accessories required for a complete and proper installation, and as recommended by the manufacturer of the steel studs used.

### 2.2 GROUT

A. Provide a good grade of commercial grout for leveling the floor runner member of steel stud partitions as required.

## PART 3 - EXECUTION

### 3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

### 3.2 INSTALLATION

A. Accurately layout partition and wall lines from the dimensions shown on the Drawings.

B. Install metal studs and accessories in strict accordance with the manufacturer's recommendations as approved by the contracting officer, anchoring all components firmly into position.

C. Align partition and wall assemblies to a tolerance of one in 200 horizontally and one in 500 vertically.

D. Coordination:

1. Space the studs as required for compliance with pertinent regulations, to give proper support for the covering material, and as indicated on the Drawings.

2. Coordinate and provide required backing and other support for items to be mounted on the finished covering.

3. Coordinate requirements for pipes and other items designed to be housed within the partition and wall systems.

## 3.3 LEVELING

A. By use of the specified grout, or by other means approved by the contracting officer, provide continuous solid bearing under floor runner members of steel stud partitions and walls.

B. Level in a manner to provide uniform interface with ceilings and other overhead construction.

END OF SECTION - METAL STUD SYSTEM

# SECTION 09260

# GYPSUM WALLBOARD SYSTEM

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work included: Provide gypsum drywall and accessories where shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division l of these Specifications.

2. Section 09110: Metal stud system.

### 1.2 QUALITY ASSURANCE

A. Use skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

### 1.3 SUBMITTALS

A. Product data: Within 30 calendar days after the Contractor has received the contracting officer's Notice to Proceed, submit:

1. Materials list of items proposed to be provided under this Section;

2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements;

3. Manufacturer's recommended installation procedures which, when approved by the contracting officer, will become the basis for accepting or rejecting actual installation procedures used on the Work.

## PART 2 - PRODUCTS

### 2.1 GYPSUM WALLBOARD

A. General:

1. Provide gypsum wallboard complying with Fed Spec SS-L-30D, in 48" widths and in such lengths as will result in a minimum of joints.

2. Regular wallboard: Provide type III, grade R, class 1, 5/8" thick except as may be shown otherwise on the Drawings.

3. Fire-retardant wallboard: Provide type III, grade X, class 1, 5/8" thick.

B. Sheathing: Where gypsum wallboard sheathing is indicated on the Drawings, provide gypsum wallboard complying with Fed Spec SS-L-30D, type II, grade W, class 2.

### 2.2 METAL TRIM

A. Form from zinc-coated steel not lighter than 26 gage, complying with Fed Spec QQ-S-775, type I, class D or E.

B. Casing beads:

1. Provide channel-shapes with an exposed wing, and with a concealed wing not less than 7/8" wide.

2. The exposed wing may be covered with paper cemented to the metal, but shall be suitable for joint treatment.

C. Corner beads: Provide angle shapes with wings not less than 7/8" wide and perforated for nailing and joint treatment, or with combination metal and paper wings bonded together, not less than 1-1/4" wide and suitable for joint treatment.

D. Edge beads for use at perimeter of ceilings:

1. Provide angle shapes with wings not less than 3/4" wide.

2. Provide concealed wing perforated for nailing, and exposed wing edge folded flat.

3. Exposed wing may be factory finished in white color.

### 2.3 JOINTING SYSTEM

A. Provide a jointing system, including reinforcing tape and compound, designed as a system to be used together and as recommended for this use by the manufacturer of the gypsum wallboard approved for use on this Work.

B. Jointing compound may be used for finishing if so recommended by its manufacturer.

## 2.4. FASTENING DEVICES

A. For fastening gypsum wallboard in place on metal studs and metal channels, use flat-head screws, shouldered, specially designed for use with power-driven tools, not less than 1" long, with self-tapping threads and self-drilling points.

## 2.5 ACCESS DOORS

A. In partitions and ceilings installed under this Section, provide doors where required for access to mechanical installations and electrical installations.

## 2.6 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the contracting officer.

# PART 3 - EXECUTION

## 3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

## 3.2 INSTALLATION

A. General:

1. Install the gypsum wallboard in accordance with the Drawings and with the separate boards in moderate contact but not forced into place.

2. At internal and external corners, conceal the cut edges of the boards by the overlapping covered edges of the abutting boards.

3. Stagger the boards so that corners of any four boards will not meet at a common point except in vertical corners.

B. Ceilings:

1. Install the gypsum wallboard to ceilings with the long dimension of the wallboard at right angles to the supporting members.

C. Walls:

1. Install the gypsum wallboard to studs at right angles to the furring or framing members.

2. Make end joints, where required, over framing or furring members.

D. Attaching:

1. Drive the specified screws with clutch-controlled power screwdrivers, spacing the screws 12" on centers at ceilings and 16" on centers at walls.

2. Where framing members are spaced 24" apart on walls, space screws 12" on centers.

E. Access doors:

1. By careful coordination with the Drawings and with the trades involved, install the specified access doors where required.

2. Anchor firmly into position, and align properly to achieve an installation flush with the finished surface.

## 3.3 JOINT TREATMENT

A. General:

1. Inspect areas to be joint treated, verifying that the gypsum wallboard fits snugly against supporting framework.

2. In areas where joint treatment and compound finishing will be performed, maintain a temperature of not less than 55 degrees for 24 hours prior to commencing the treatment, and until joint and finishing compounds have dried.

3. Apply the joint treatment and finishing compound by machine or hand tool.

4. Provide a minimum drying time of 24 hours between coats, with additional drying time in poorly ventilated areas.

B. Embedding compounds:

1. Apply to gypsum wallboard joints and fastener heads in a thin uniform layer.

2. Spread the compound not less than 3" wide at joints, center the reinforcing tape in the joint, and embed the tape in the compound. Then spread a thin layer of compound over the tape.

3. After this treatment has dried, apply a second coat of embedding compound to joints and fastener heads, spreading in a thin uniform coat to not less than 6" wide at joints, and feather edged.

4. Sandpaper between coats as required.

5. When thoroughly dry, sandpaper to eliminate ridges and high points.

C. Finishing compounds:

1. After embedding compound is thoroughly dry and has been completely sanded, apply a coat of finishing compound to joints and fastener heads.

2. Feather the finishing compound to not less than 12" wide.

3. When thoroughly dry, sandpaper to obtain a uniformly smooth surface, taking care to not scuff the paper surface of the wallboard.

## 3.4 CORNER TREATMENT

A. Internal corners: Treat as specified for joints, except fold the reinforcing tape lengthwise through the middle and fit neatly into the corner.

B. External corners:

1. Install the specified corner bead, fitting neatly over the corner and securing with the same type fasteners used for installing the wallboard.

2. Space the fasteners approximately 6" on centers, and drive through the wallboard into the framing or furring member.

3. After the corner bead has been secured into position, treat the corner with joint compound and reinforcing tape as specified for joints, feathering the joint compound out from 8" to 10" on each side of the corner.

## 3.5 OTHER METAL TRIM

A. General:

1. The Drawings do not purport to show all locations and requirements for metal trim.

2. Carefully study the Drawings and the installation, and provide all metal trim normally recommended by the manufacturer of the gypsum wallboard approved for use in this Work.

## 3.6 CLEANING UP

A. In addition to other requirements for cleaning, use necessary care to prevent scattering gypsum wallboard scraps and dust, and to prevent tracking gypsum and joint finishing compound onto floor surfaces.

B. At completion of each segment of installation in a room or space, promptly pick up and remove from the working area all scrap, debris, and surplus material of this Section.

END OF SECTION - GYPSUM WALLBOARD SYSTEM

# SECTION 09900

# PAINTING

## PART 1 - GENERAL

### 1.1 DESCRIPTION

A. Work included: Paint and finish the exterior and interior exposed surfaces listed in the Scope of Work, as specified herein, and as needed for a complete and proper installation.

B. Related work:

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division l of these Specifications.

C. Definitions:

1. "Paint," as used herein, means coating systems materials including primers, emulsions, epoxy, enamels, sealers, fillers, and other applied materials whether used as prime, intermediate, or finish coats.

### 1.2 QUALITY ASSURANCE

A. Use skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

B. Paint coordination:

1. Provide finish coats which are compatible with the prime coats actually used.

2. Review other Sections of these Specifications as required, verifying the prime coats to be used and assuring compatibility of the total coating

system for the various substrate.

3. Upon request, furnish information on the characteristics of the specific finish materials to assure that compatible prime coats are used.

4. Provide barrier coats over non-compatible primers, or remove the primer and re-prime as required.

5. Notify the contracting officer in writing of anticipated problems in using the specified coating systems over prime coatings supplied under other Sections.

## 1.3 SUBMITTALS

A. Product data: Within 10 calendar days after the Contractor has received the contracting officer's Notice to Proceed, submit:

1. Materials list of items proposed to be provided under this Section;

2. Manufacturer's specifications and other data needed to prove compliance with the specified requirements.

3. Manufacturer's color charts for each product for selections by the contracting officer.

## 1.4 JOB CONDITIONS

A. Do not apply solvent-thinned paints when the temperature of surfaces to be painted and the surrounding air temperatures are below 45 degrees F, unless otherwise permitted by the manufacturers' printed instructions as approved by the contracting officer.

B. Weather conditions:

1. Do not apply paint when the ambient outside relative humidity exceeds 85%.

## PART 2 - PRODUCTS

### 2.1 PAINT MATERIALS

A. Acceptable materials:

1. Equal products of Wellborn, Sherwin-Williams, Glidden & Co., or other manufacturers approved in advance by the COTR, may be used in accordance with provisions of the contract.

B. Undercoats and thinners:

1. Provide undercoat paint produced by the same manufacturer as the finish coat.

2. Use only the thinners recommended by the paint manufacturer, and use only to the recommended limits.
3. Insofar as practicable, use undercoat, finish coat, and thinner material as parts of a unified system of paint finish.

### 2.2 APPLICATION EQUIPMENT

A. For application of the approved paint, use only such equipment as is recommended for application of the particular paint by the manufacturer of the particular paint, and as approved by the contracting officer.

B. Prior to use of application equipment, verify that the proposed equipment is actually compatible with the material to be applied, and that integrity of the finish will not be jeopardized by use of the proposed equipment.

### 2.3 Sealing and Finishing for Hardwood Strip Flooring.

Seal coat and finish coat materials shall be compatible with each other.

### 2.4 Game Line Marking Materials:

As recommended by wood flooring finish manufacturer.

## 2.5 OTHER MATERIALS

A. Provide other materials, not specifically described but required for a complete and proper installation, as selected by the Contractor subject to the approval of the contracting officer.

# PART 3 - EXECUTION

## 3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

## 3.2 MATERIALS PREPARATION

A. General:

1. Mix and prepare paint materials in strict accordance with the manufacturers' recommendations as approved by the contracting officer.

2. When materials are not in use, store in tightly covered containers.

3. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.

B. Stirring:

1. Stir materials before application, producing a mixture of uniform density.

2. Do not stir into the material any film which may form on the surface, but remove the film and, if necessary, strain the material before using.

## 3.3 SURFACE PREPARATION

A. General:

1. Perform preparation and cleaning procedures in strict accordance with the paint manufacturers' recommendations as approved by the contracting officer.

2. Remove removable items which are in place and are not scheduled to receive paint finish; or provide surface-applied protection prior to surface preparation and painting operations.

3. Following completion of painting in each space or area, reinstall the removed items by using workmen who are skilled in the necessary trades.

4. Clean each surface to be painted prior to applying paint of surface treatment.

5. Remove oil and grease with clean cloths and cleaning solvent of low toxicity and flash point in excess of 200 degrees F, prior to start of mechanical cleaning.

6. Schedule the cleaning and painting so that dust and other contaminants from the cleaning process will not fall onto wet newly painted surfaces.

B. Preparation of wood surfaces:

1. Clean wood surfaces until free from dirt, oil, and other foreign substance.

2. Smooth finished wood surfaces exposed to view, using the proper sandpaper. Where so required, use varying degrees of coarseness in sandpaper to produce a uniformly smooth and unmarred wood surface.

3. Unless specifically approved by the contracting officer, do not proceed with painting of wood surfaces until the moisture content of the wood is 12% or less. Measured wood with a moisture meter if requested by the contracting officer, at no additional cost.

## 3.4 PAINT APPLICATION

A. General:

1. Touch-up shop-applied prime coats which have been damaged, and

touch-up bare areas prior to start of finish coats application.

2. Sand and dust between coats to remove defects visible to the unaided eye from a distance of five feet.

3. On removable panels and hinged panels, paint the back sides to match the exposed sides.

B. Drying:

1. Allow sufficient drying time between coats, modifying the period as recommended by the material manufacturer.

2. Consider oil-base and oleo-resinous solvent-type paint as dry for re-coating when the paint feels firm, does not deform or feel sticky under moderate pressure of the thumb, and when the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

C. Brush applications:

1. Brush out and work the brush coats onto the surface in an even film.

2. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness, and other surface imperfections will not be acceptable.

D. Spray application:

1. Except as specifically otherwise approved by the contracting officer, confine spray application to metal framework and similar surfaces where hand brush work would be inferior.

2. Where spray application is used, apply each coat to provide the hiding equivalent of brush coats.

3. Do not double back with spray equipment to build up film thickness of two coats in one pass.

E. For completed work, match the approved Samples as to texture, color, and coverage. Remove, refinish, or repaint work not in compliance with the specified requirements.

END OF SECTION - PAINTING

# SECTION 16010

# GENERAL PROVISIONS

## PART 1 GENERAL

### 1.01 SCOPE OF WORK

A. Conform with applicable provisions of the General Provisions.

### 1.02 REQUIREMENTS

A. Furnish all labor, materials, service, equipment and appliances required to complete the installation of the complete electrical systems in accordance with the Specifications and Contract Drawings.

### 1.03 REQUIREMENTS OF REGULATORY AGENCIES AND STANDARDS

A. Regulatory Agencies: Installation, materials, equipment and workmanship shall conform to the applicable provisions of the National Electrical Code (NEC), State and Local codes and the terms and the conditions of the authorities having lawful jurisdiction pertaining to the work required. All modifications required by these codes, rules, regulations and authorities shall be made by the Contractor without additional charge to the Government.

B. Underwriter's Laboratories (UL): All materials, appliances, equipment or devices shall conform to the applicable standards of Underwriter's Laboratories, Inc. The label of, or listing by, UL is required.

C. All electrical work performed under this contract shall be performed or supervised by a **Licensed Georgia Master Electrician.**

### 1.04 SUBMITTALS

A. Materials List: Within 15 days after award of contract, the Contractor shall submit to the COTR a minimum of 7 (seven) copies of all equipment to be furnished. Where such equipment will be furnished "as specified", a statement to that effect is sufficient. Where substitutions are proposed, the Contractor shall submit for Prior COTR approval.

B. Samples: If required by the Government, the Contractor shall submit for inspection samples of both specified and proposed substitute items.

C. Shop Drawings: Submit for approval a minimum of seven (7) copies of all shop drawings after the materials list has been approved and prior to ordering. Show complete outlines, dimensions, electrical services, control diagrams, electrical characteristics of special nature or critical to the installation and pertinent data required for installation. Indicate in the transmittal that submittal has been reviewed and accepted and all contract deviations identified.

## PART 2 PRODUCTS

### 2.01 EQUIPMENT REQUIREMENTS

A. The electrical requirements for equipment specified or indicated on the drawings are based on information available at the time of design. If equipment furnished for installation has electrical requirements other than indicated on the electrical drawings, the Contractor shall make all adjustments to wire and conduit size, controls, over current protection and installation as required to accommodate the equipment supplied, without additional charge to the Government. The complete responsibility and costs for such adjustments shall be assigned to the respective section of this specification under which the equipment is furnished.

### 2.02 MATERIALS

A. All similar materials and equipment shall be the product of the same manufacturer.

B. Where no specific material, apparatus or appliance is mentioned, any first-class product made by a reputable manufacturer may be used, providing it conforms to the contract requirements and meets the approval of the COTR.

C. Material and equipment shall be the standard products of manufacturers regularly engaged in the productions of such material and shall be the manufacturer's current and standard design.

D. Altitude: Equipment affected by altitude shall perform satisfactorily for the function intended at an altitude of the project site.

## PART 3 EXECUTION

## 3.01 GENERAL

A. Fabrication, erection and installation of the complete electrical system shall be done in a first class workmanlike manner by qualified personnel experienced in such work and shall proceed in an orderly manner so as not to hold up progress of the project. The Electrical Contractor shall check all areas and surfaces where electrical equipment material is to be installed, removed or relocated and report any unsatisfactory conditions before starting work. Commencement of work signifies the Contractor's acceptance of existing conditions. In the acceptance or rejection of the finished installation, no allowance will be made for lack of skill on the part of workmen.

## 3.02 TEMPORARY POWER AND LIGHTING

A. Furnish and install all temporary electrical facilities required for construction and safety operations. The contractor will be allowed to use available Government power outlets for performance of the work.

## 3.03 PERFORMANCE TESTS

A. Thoroughly test all fixtures, services and all circuits for proper operating condition and freedom from grounds and short circuits before acceptance is requested. All equipment, appliances, and devices shall be operated under load conditions.

## 3.04 AS-BUILT DRAWINGS

A. During progress of the work, maintain an accurate record of the installation of the system, locating each circuit precisely by dimension. Upon completion of the installation, transfer all record data to blue line prints of the original drawings.

## 3.05 OPERATING INSTRUCTIONS AND MANUALS

A. Instructions: Without additional charge to the Government, furnish competent instruction to the Government in the care, adjustment and operation of all parts of the electrical equipment and systems.

B. Manuals: Upon completion of the work, prepare and deliver to the COTR two (2) sets of complete operating and maintenance manuals for the systems and major equipment installed. Include catalog data, shop drawings, wiring diagrams, performance curves and rating data,

spare parts lists and manufacturer's operating and maintenance data.

C. Other: The above requirements are in addition to specific instructions and manuals specified for individual systems or equipment.

## 3.06 DRAWINGS

A. General: The electrical drawings show the general arrangement of all conduit, equipment, etc. and shall be followed as closely as actual building construction and the work of other trades will permit. Because of the small scale of the electrical drawings, it is not possible to indicate all offsets, fittings and accessories, which may be required. The contractor shall investigate the structural and finish conditions affecting the work and shall arrange his work accordingly, providing such fittings, elbow, pull-boxes, and accessories as may be required to meet such conditions.

B. Field Measurements: The Contractor shall verify the dimensions governing the electrical work at the building. No extra compensation shall be claimed or allowed on account of differences between actual dimensions and those indicated on the drawings.

## 3.07 LOCATION OF EQUIPMENT AND OUTLETS

A. The approximate locations of cabinets, panelboards, wiring, power outlets, etc., are indicated on the drawings; however, they are not intended to give complete and accurate information. Determine the exact location after thoroughly examining the general building plans and by actual measurements during construction, subject to the approval of the COTR.

## 3.08 WARRANTY

A. Deliver originals of all guarantees and warranties on this portion of the work to the Contracting Officer or COTR. Warrant all equipment, materials and workmanship for one year in accordance with the terms of this Contract.

END OF SECTION - GENERAL PROVISIONS

# SECTION 16110

# RACEWAYS, BOXES AND FITTINGS

## PART 1 GENERAL

### 1.1 CONFORMANCE

A. Conform with applicable provisions of the General Conditions, Special Conditions and General Requirements.

### 1.2 RELATED WORK IN OTHER SECTIONS

A. Section 16010, General Provisions;

## PART 2 PRODUCTS

### 2.1 CONDUITS

A. Steel Conduit: Rigid, threaded, thick wall, zinc coated on the outside and either zinc coated or coated with an approved corrosion resistant coating on the inside.

B. Electrical Metallic Tubing (EMT): Mild steel, zinc coated on the outside and either zinc coated or coated with an approved corrosion resistant coating on the inside. Maximum, size 2 inch electrical trade size unless noted on the drawings or specifically approved. **EMT shall be used inside buidings only**.

C. Intermediate Metal Conduit (IMC): Rigid, threaded, lightweight steel, zinc-coated on the outside and either zinc-coated or coated with an approved corrosion resistant coating on the inside.

D. Flexible Conduit: Commercial greenfield, galvanized steel, with a separate grounding bond wire installed in the conduit in addition to other wires.

E. Liquid Tight Flexible Conduit: Flexible galvanized steel tubing with extruded liquid tight PVC outer jacket and a continuous copper bonding conductor wound spirally between the convolutions. Where a separate grounding conductor is installed in the conduit, bonding conductor in the convolutions may be omitted.

F. Plastic coated rigid steel conduit shall be hot galvanized steel conduit with a coating of polyvinyl chloride, minimum 15 mills (0.015), on the exterior surfaces, shall have an approved corrosion resistant coat inside and shall be Pittsburgh, J & L, Republic or prior COTR approved equal.

G. Rigid Non-Metallic Conduit: Schedule 40, high impact PVC with 7,000 psi tensile strength at 73.4 F., 11.000 psi flexural strength, 8,600 psi compression strength, approved for 90 C. conductors. Carlon, Triangle, or prior COTR approved equal.

H. Aluminum Conduit: Rigid, threaded, thick wall type, approved for the application.

I. Conduit Size: Minimum conduit size 1/2 inch except where specifically approved for equipment connections. Sizes not noted on drawings shall be as required by the NEC. All home runs to panel shall be 3/4 inch minimum. Conduits for #12 THHN wire shall be sized the same as for #12 THW wire.

## 2.2 CONDUIT FITTINGS

A. Connectors and Couplings: Compression type threadless fittings for rigid steel conduit or IMC not permitted. Set screw type fittings for rigid aluminum conduit not permitted. EMT couplings and connectors either steel or malleable iron only. "Concrete Tight" or "Rain Tight" and either the gland and ring compression type or the stainless steel multiple point locking type. Connectors to have insulated throats. EMT fittings using set screws or indentations as a means of attachment are not permitted.

B. Bushings: Insulated type, designed to prevent abrasion of wires without impairing the continuity of the conduit grounding system, for rigid steel conduit, IMC and rigid aluminum conduit larger than 1/2 inch size and connectors for EMT.

C. Rigid Steel Conduit, IMC and EMT Fittings: Iron or steel only.

D. Liquid Tight Flexible Conduit Fittings: With threaded grounding cone, a steel, nylon or equal plastic compression ring and a gland for tightening. Either steel or malleable iron only with insulated throats and male thread and locknut or male bushing with or without "O" ring seat. Each connector shall provide a low resistance ground connection between the flexible conduit and the outlet box, conduit or other equipment to which it is connected.

E. Rigid Aluminum Conduit Fittings: Malleable iron, steel or aluminum alloy. Ferrous fittings zinc coated or cadmium plated. Aluminum alloy fittings shall conform with the characteristics defined by UL for aluminum rigid metallic conduit and shall not contain more than 0.04 percent copper.

F. Flexible Conduit Fittings (Commercial Greenfield): Either steel or malleable iron only, with

insulated throats.

G. Fittings for PVC Coated Rigid Steel Conduit: Ells and couplings used with PVC coated rigid steel conduit shall have a factory applied coating of polyvinyl chloride, minimum 15 mills (0.015) on exterior surfaces and shall have a PVC sleeve extruded a minimum of 2" from one end of the fitting.

## 2.3 OUTLET BOXES

A. Construction: Zinc coated or cadmium plated steel boxes of a class to satisfy the condition at each outlet except where unilet on condulet bodies are required. Knockout type with knockouts removed only where necessary to accommodate the conduit entering. Square cornered, straight sided gang boxes, 4 inch octagon concrete rings and 4 inch octagon hung ceiling boxes with bars may be folded type, one piece deep drawn type for all other boxes.

B. Size: To accommodate the required number and sizes of conduits, wires and splices in accordance with NEC requirements, but not smaller than size shown or specified. Standard concrete type boxes not to exceed 6 inches deep except where necessary to permit entrance of conduits into side of boxes without interference with reinforcing bars. Special purpose boxes shall be sized for the device or application indicated.

## 2.4 PULLBOXES

A. Minimum NEC requirements unless larger box is noted. As specified for outlet boxes with blank cover for pullboxes with internal volume not more that 150 cubic inches. As specified for cabinets for pullboxes with internal volume over 150 cubic inches, except covers to have same thickness as box with corrosion resistant screw or bolt attachment.

# PART 3 EXECUTION

## 3.1 CONDUIT INSTALLATIONS

A. Conduit Systems: Rigid Steel conduit, IMC, EMT, or Rigid Non-Metallic conduit unless noted. Install steel conduits for underground runs, runs in concrete feeder circuits and where required by the NEC for mechanical protection, etc. Use flexible conduit only for motor or equipment connections and then only to the extent of minimum lengths required for connections. Install flexible conduit connections at all resilient mounted equipment. Provide liquid tight flexible conduit in exterior, wet or damp locations and for connections to the pipe mechanical system. Aluminum conduit may be used only in dry locations above ground in sizes two inch or larger for power and communications systems. Conduit and tubing shall be kept at least 6 inches from paralleled runs or hot water or steam pipes.

B. Conduit Installation: Install concealed conduit and EMT in as direct lines as possible. Install exposed conduits and EMT parallel to or at right angles to the lines of the building. Right angle bends in exposed conduit and EMT runs shall be made with standard elbows, screw jointed conduit fittings or conduit bent to radius no less than those of standard elbows.

C. Concealed Conduits: Install conduit systems concealed where possible unless otherwise noted. Conduit systems may be exposed in unfinished utility areas, ceiling cavities and where specifically approved by the Government.

D. Conduit in Concrete: Conduits shall not be installed in floor slabs poured on grade. Rigid steel conduit may be embedded in above grade concrete providing the outside diameter does not exceed 1/3 thickness of concrete slab, wall or beam, is located entirely within the center third of the member and lateral spacing of conduits is not less than 3 diameters. Aluminum conduit shall not be embedded in concrete or masonry.

E. Conduit in Ground: PVC plastic coated rigid steel conduit shall be installed for all underground feeders and in all locations where conduit is in contact with dirt, soil, fill or earth. All fittings, couplings, ells, etc., used with conduit shall have same factory applied PC coating.

1. At his option, Contractor may substitute Schedule 40 rigid non-metallic conduit for PVC plastic coated rigid steel conduit, where allowed by the Code enforcing Authority. Installations and use of rigid non-metallic conduit shall comply with Article 347 of NEC. An equipment grounding conductor, in accordance with NEC, shall be installed in all non-metallic conduits. All conduit sizes, shown on the plans, shall be increased to accommodate the installation of the equipment grounding conductor. All joints shall be made with solvent cement per manufacturer's recommendations and shall be watertight. Plastic conduit runs stubbing up to above grade junction boxes or conduit by installing a female adapter, 90 degree PVC coated rigid steel elbow and a PVC coated rigid steel nipple of length as required to stub conduit up. No plastic conduit shall be installed above grade. <u>Plastic conduit shall be used for straight runs only. PVC coated rigid steel conduit shall be used for all bends, ells and offsets.</u>

F. Conduit Bends: In any conduit or EMT run, the number of quarter bends or equivalent between terminations at cabinets or boxes shall not exceed four bends for conduits up to 1-1/4 inch, three bends for 1-1/2 to 2-1/2 inch conduits and two bends for 3 to 4 inch conduits. Conduit runs between cabinets or boxes shall not exceed 200 feet for straight runs nor 100 feet for runs with maximum number of bends. Bends in telephone feeder conduits shall be long radius.

G. Conduit Openings: Protect all vertical runs of conduits or EMT terminating in the bottoms of

boxes or cabinets, etc., from the entrance of foreign material prior to installation of conductors.

H. Sleeves for Conduit: Install sleeves for conduit where shown or as required. Conduit sleeves not used shall be plugged with recessed type plugs. Sleeve all conduit passing through walls. Sleeves that are used shall be caulked tight with lead yarn.

## 3.2 CONDUIT SUPPORTS

A. Supports: Provide supports for horizontal conduits and EMT not more than 8 feet apart with not less than two supports for each 10 foot straight length and one support near each elbow or bend including runs above suspended ceilings and within 3 feet of all junction boxes, switches, fittings, etc.

B. Strap: Install one hole pipe straps on conduits 1-1/2 inch or smaller. Install individual pipe hangers for conduits larger that 1-1/2 inch. Spring steel fasteners with hanger rods may be used in dry locations in lieu of pipe straps.

C. Trapezes: Install multiple (trapeze) pipe hangers where two or more horizontal conduits or EMT run parallel and at the same elevation. Secure each conduit or EMT to the horizontal hanger member by a U-bolt, one hole strap or other specially designed and approved fastener.

D. Hanger Rods: Install 1/4 inch diameter or larger galvanized steel rods for trapezes, spring steel
fasteners, clips or clamps. Wire or perforated strapping shall not be used for the support of any conduit or EMT.

E. Fastening: Fasten pipe straps and hanger rods to concrete by means of inserts or expansion bolts to brickwork by means of expansion bolts and to hollow masonry by means of toggle bolts. Wooden plugs and shield shall not be used. Power driven fasteners may be used to attach pipe straps and hanger rods to concrete only where approved by the Government.

F. All conduits not embedded in concrete shall be firmly secured by means of pipe clamps, hangers, etc., equal to Caddy fasteners of ERICO Products, Inc. Wire wrapped around conduits and supporting members will not be accepted.

## 3.3 CONDUIT STUB-UPS

A. All conduits run under floor shall be stubbed up to a coupling set flush with floor. This includes conduits stubbed up in walls and feeder conduits. Install flush plug until after floor

is finished, then complete connections to boxes or equipment.

## 3.4 OUTLET BOXES

A. Outlet boxes, covers and fittings, according to the particular use for which they are required, shall be provided in the locations marked on the drawings by symbols, and/or for use to facilitate the installation of the electrical systems. When necessary, outlets shall be relocated so that where fixtures of other fittings are installed they will be symmetrically located according to the room layout and will not interfere with other work or equipment required by the drawings and these specifications.

B. Installation: Unless otherwise specified or shown on the drawings, outlet boxes shall be flush mounted and the front edges of the boxes or plaster covers shall be flush with the finished wall or ceiling line or if installed in walls and ceilings of incombustible construction, not more than 1/4 inch back of same. Mount boxes with the long axes of devices vertical, unless otherwise specified. Boxes in plastered walls and ceilings shall be provided with plastic covers. A multiple of box extensions and/or covers will not be permitted. Install in a rigid and satisfactory manner with suitable metal bar hangers, box cleats, adjustable box hangers, etc. Use wood screws on wood, expansion shields on masonry and machine screws on steel work.

## 3.5 PULLBOXES

A. Provide additional pullboxes wherever necessary to meet requirements for maximum length of conduit runs and maximum numbers of bends as specified under "Conduit and Fittings".

## 3.6 FLOOR BOXES

A. Install level with top covers adjusted flush with finished floor or floor tile.

## 3.7 FIXTURE CONNECTIONS

A. Recessed or surface light fixtures in lay-in or accessible ceilings shall be connected with minimum 1/2 inch flexible metallic conduit, 4 to 6 feet long with grounding provisions.

## 3.8 CLOSING OF OPENINGS

A. Wherever slots, sleeves, or other openings are provided in floors or walls for the passage of conduits or other forms of raceway, such openings, if unused, or the spaces left in such openings, shall be filled or closed in a manner approved by the Government.

## 3.9 IDENTIFICATION

A. Refer to Section 16010, General Provisions, for identification requirements for raceways and boxes.

END OF SECTION -RACEWAYS, BOXES AND FITTINGS

# SECTION 16120

# CONDUCTORS

## PART 1 GENERAL

### 1.1 CONFORMANCE

A. Conform with applicable provisions of the General Conditions, Special Conditions, and General Requirements.

B. NEC, UL

## PART 2 PRODUCTS

### 2.1 WIRES AND CABLES (600 VOLTS)

A. Type: Copper conductors with 600 volts insulation unless otherwise specified or noted on the drawings.

B. Use of aluminum conductors will not be permitted.

C. Insulation: Type THW insulation, and smaller unless otherwise specified or noted on the drawings.

D. Size: No. 12 minimum unless otherwise specified or noted on the drawings.

E. Color Coding: Color coding for 120/208 volts: A-black, B-red, C-blue, N-white; color coding 277/480 volts: A-brown, B-orange, C-yellow, N-gray; with green for all ground conductors.

### 2.2 CONNECTORS AND LUGS

A. For Copper Conductors No. 6 and Smaller: 3M Scotch-Lok or T & B Sta-Kon compression or indent type connectors with integral or separate insulating caps.

B. For Copper Conductors Larger than No. 6: Solderless, indent, hex screw or bolt type pressure

conductors, properly taped or insulated.

## PART 3 EXECUTION

### 3.1 SPLICES

A. (480 Volts and Under): Permitted only at outlets or accessible enclosures.

### 3.2 CABLE BENDS

A. Radius of ends not less than 10 times the outer diameter of the cable.

END OF SECTION - CONDUCTORS

# SECTION 16135

# CABINETS, BOXES, AND FITTINGS

## PART 1 - GENERAL

### 1.01 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

B. Requirements of the following Division 16 Sections apply to this section:

1. "Basic Electrical Requirements."
2. "Basic Electrical Materials and Methods."

### 1.02 SUMMARY

A. This section includes cabinets, boxes, and fittings for electrical installations and certain types of electrical fittings not covered in other sections. Types of products specified in this Section include:

1. Outlet and device boxes.
2. Pull and junction boxes.

B. Conduit-body-type electrical enclosures and wiring fittings are specified in Division 16 Section "Raceways."

### 1.03 DEFINITIONS

A. Device Box: An outlet box designed to house a receptacle device or a wiring box designed to house a switch.

B. Outlet Box: A wiring enclosure where current is taken from a wiring system to supply utilization equipment.

1.04 SUBMITTALS

A. General: Submit the following in accordance with Conditions of Contract and Division 1 Specification Sections:

B. Product data for cabinets and enclosures with classification higher than NEMA 1.

1.05 QUALITY ASSURANCE

A. UL Listing and Labeling: Items provided under this section shall be listed and labeled by UL.

B. National Electrical Code Compliance: Components and installation shall comply with NFPA 70 "National Electrical Code."

C. NEMA Compliance: Comply with NEMA Standard 250, "Enclosures for Electrical Equipment (1000 Volts Maximum)."

PART 2 - PRODUCTS

2.01 BOXES, AND FITTINGS, GENERAL

A. Electrical Boxes, and Fittings: Of indicated types, sizes, and NEMA enclosure classes. Where not indicated, provide units of types, sizes, and classes appropriate for the use and location. Provide all items complete with covers and accessories required for the intended use. Provide gaskets for units in damp or wet locations.

2.02 MATERIALS AND FINISHES

A. Sheet Steel: Flat-rolled, code-gage, galvanized steel.

B. Fasteners for General Use: Corrosion resistant screws and hardware including cadmium and zinc plated items.

C. Fasteners for Damp or Wet Locations: Stainless steel screws and hardware.

D. Cast Metal for Boxes, Enclosures, and Covers; Copper-free aluminum except as otherwise specified.

E. Exterior Finish: Gray baked enamel for items exposed in finished locations except as otherwise indicated.

F. Fittings for Boxes, Cabinets, and Enclosures: Conform to UL 514B. Malleable iron or zinc plated steel for conduit hubs, bushings and box connecters.

## 2.03 METAL OUTLET, DEVICE, AND SMALL WIRING BOXES

A. General: Conform to UL 514A, "Metallic Outlet Boxes, Electrical," and UL 514B, "Fittings for Conduit and Outlet Boxes." Boxes shall be of type, shape, size, and depth to suit each location and application.

B. Steel Boxes: Conform to NEMA OS 1, "Sheet Steel Outlet Boxes, Device Boxes, Covers, and Box Supports." Boxes shall be sheet steel with stamped knockouts, threaded screw holes and accessories suitable for each location including mounting brackets and straps, cable clamps, exterior rings and fixture studs.

C. Cast-Aluminum Boxes: Copper free aluminum threaded raceway entries, and features and accessories suitable for each location including mounting ears, threaded screw holes for devices and closure plugs.

## 2.04 PULL AND JUNCTION BOXES

A. General: Comply with UL 50, "Electrical Cabinets and Boxes", for boxes over 100 cubic inches volume. Boxes shall have screwed or bolted on covers of material same as box and shall be of size and shape to suit application.

B. Steel Boxes: Sheet steel with welded seams. Where necessary to provide a rigid assembly, construct with internal structural steel bracing.

C. Hot-Dipped Galvanized Steel Boxes: Sheet steel with welded seams. Where necessary to provide a rigid assembly, construct with internal structural steel bracing. Hot-dip galvanized after fabrication. Cover shall be gasketed.

D. Stainless-Steel Boxes: Fabricate of stainless steel conforming to Type 302 of ASTM A 167, "Specification for Stainless and Heat Resisting Chromium-Nickel Steel Plate, Sheet, and Strip." Where necessary to provide a rigid assembly, construct with internal structural stainless steel bracing. Cover shall be gasketed.

E. Cast-Aluminum Boxes: Molded of copper free aluminum, with gasketed cover and integral threaded conduit entrances.

## PART 3 - EXECUTION

## 3.01 INSTALLATION, GENERAL

A. Locations: Install items where indicated and where required to suit code requirements and installation conditions.

B. Cap unused knockout holes where blanks have been removed and plug unused conduit hubs.

C. Support and fasten items securely in accordance with Division 16 Section "Supporting Devices."

D. Sizes shall be adequate to meet NEC volume requirements, but in no case smaller than sizes indicated.

E. Remove sharp edges where they may come in contact with wiring or personnel.

## 3.02 APPLICATIONS

A. Outlet Boxes and Fittings: Install outlet and device boxes and associated covers and fittings of materials and NEMA types suitable for each location and in conformance with the following requirements:

1. Interior Dry Locations: NEMA type 1, sheet steel.

2. Interior Dry Locations: Sheet steel, NEMA type 1.

3. Locations Exposed to Weather or Dampness: Cast metal, NEMA type 3R.

4. Wet and Corrosive Locations: NEMA type 4X enclosures.

B. Pull and Junction Boxes: Install pull and junction boxes of materials and NEMA types suitable for each location except as otherwise indicated.

## 3.03 INSTALLATION OF OUTLET BOXES

A. Outlets at Windows and Doors: Locate close to window trim. For outlets indicated above doors use 6 "- 9" mounting height above door and center outlets above the door opening except as otherwise indicated.

B. Column and Pilaster Locations: Locate outlet boxes for switches and receptacles on columns or pilasters in the centers of the column.

C. Locations in Special Finish Materials: For outlet boxes for receptacles and switches mounted in desks or furniture cabinets or in glazed tile, concrete block, marble, brick, stone or wood walls, use rectangular

shaped boxes with square corners and straight sides. Install such boxes without plaster rings. Saw cut all recesses for outlet boxes in exposed masonry walls.

D. Gasketed Boxes: At the following locations use cast metal, threaded hub type boxes with gasketed weatherproof covers:

1. Exterior locations.
2. Where surface mounted on unfinished walls, columns or pilasters. (Cover gaskets may be omitted in dry locations).
3. Where exposed to moisture laden atmosphere.

E. Mounting: Mount outlet boxes for switches with the long axis vertical or as indicated. Mount boxes for receptacles either vertically unless noted otherwise. Locate box covers or device plates so they will not span different types of building finishes either vertically or horizontally. Locate boxes for switches near doors on the side opposite the hinges and close to door trim, even though electrical floor plans may show them on hinge side.

F. Ceiling Outlets: For fixtures, where wiring is concealed, use outlet boxes 4-inches square by 1-1/2-inches deep, minimum.

G. Cover Plates for Surface Boxes: Use plates sized to box front without overlap.

H. Protect outlet boxes to prevent entrance of plaster, and debris. Thoroughly clean foreign material from boxes before conductors are installed.

## 3.04 INSTALLATION OF PULL AND JUNCTION BOXES

A. Box Selection: For boxes in main feeder conduit runs, use sizes not smaller than 8-inches square by 4-inches deep. Do not exceed 6 entering and 6 leaving raceways in a single box. Quantities of conductors (including equipment grounding conductors) in pull or junction box shall not exceed the following:

| Size of Largest Conductors in Box | Maximum no. of Conductors in Box |
|---|---|
| No. 4/0 AWG | 30 |
| 250 MCM | 20 |
| 500 MCM | 15 |
| Over 500 MCM | 10 |

B. Mount pull boxes in inaccessible ceilings with the covers flush with the finished ceiling.

C. Size: Provide pull and junction boxes for telephone, signal, and other systems at least 50 percent larger than would be required by Article 370 of NEC, or as indicated. Locate boxes strategically and provide shapes to permit easy pulling of future wires or cables of types normal for such systems.

## 3.05 GROUNDING

A. Electrically ground metallic cabinets, boxes, and enclosures. Provide a grounding terminal in the interior of every box or enclosure.

## 3.06 CLEANING AND FINISH REPAIR

A. Upon completion of installation, inspect components. Remove burrs, dirt, and construction debris and repair damaged finish including chips, scratches, abrasions and weld marks.

B. Galvanized Finish: Repair damage using a zinc-rich paint recommended by the tray manufacturer.

C. Painted Finish: Repair damage using matching corrosion inhibiting touch-up coating.

D. Paint fire alarm system junction boxes and covers RED.

# SECTION 16140

# WIRING DEVICES AND PLATES

## PART 1 GENERAL

### 1.01 CONFORMANCE

A. Conform will applicable provisions of the General Conditions, Special Conditions and General Requirements.

### 1.02 RELATED WORK IN OTHER SECTIONS

A. Section 16010, General Provisions; Section 16450, Grounding.

## PART 2 PRODUCTS

### 2.01 SNAP SWITCHES

A. Unless otherwise specified, each snap switch (flush tumbler-toggle) shall be of the A.C. General use type for mounting in a single gang spacing, fully rated 20 amperes minimum at 120/277 volts, conforming to minimum requirements of the latest revision of the Underwriter's Laboratories, Inc., UL 20 Fifth Edition Standard Snap Switches and further requirements herein specified. Specification grade, heavy duty, single pole, 3-way or 4-way, of the maintained, momentary or lock type as indicated on the drawings. Ivory color handles unless otherwise indicated on the drawings. Silver or silver alloy contacts. A.C. 120/277 volt general use snap switches shall be capable of withstanding tests as outlined in NEMA Publications and shall be as follows unless otherwise noted.

| 20A 120/277 AC | HUBBELL | P&S | AH&H | GE |
|---|---|---|---|---|
| 1P | 1221-1 | 20-AC-1-1 | 1991-1 | 5951-2 |
| 2P | 1222-1 | 20-AC-2-1 | 1992-1 | 5952-2 |
| 3-WAY | 1223-1 | 20-AC-3-1 | 1993-1 | 5953-2 |
| 4-WAY | 1224-1 | 20-AC-4-1 | 1994-1 | 5954-2 |
| 3-POSITION 2 CCT MAINTAINED | 1385-1 | 1225-1 | 4361-1 | 5957-2 |
| 3-POSITION 2 CCT MOMENTARY | 1557-1 | 1251-1 | 1995-1 | 5955-2 |
| LIGHTED HANDLE PILOT LIGHT | 1221-PL | 2251-SP | 2999-R | SP121-8 |

## 2.02 RECEPTACLES

A. General: Configuration and requirements for all connector or outlet receptacles shall be in accordance with NEMA Publications. Fire resistant, non-absorptive, hot welded, phenolic composition or equal bodies and bases with metal plaster ears (integral with the supporting member). Single or duplex as shown or noted on drawings. Ivory color unless otherwise noted on the drawings. Double grip contacts for each prong.

B. Grounding Type: All receptacles shall be grounding type with a green colored hexagonal equipment ground screw of adequate size to accommodate an insulated grounding jumper (based on Table 250-95 of the NEC with minimum size No. 14 AWG). Grounding terminals of all receptacles shall be internally connected to the receptacle mounting yoke.

C. Unless otherwise noted, receptacle shall be as follows:

| DEVICE | HUBBELL | P&S | AH&H | GE |
|---|---|---|---|---|
| 20A-125V AC 2P 3W | 5362-1 | 6300-1 | 5739-1 | 4108-2 |
| 15A-125V AC 2P 3W | 5262-1 | 5262-1 | 5262-1 | 4065-2 |
| 15A-250V AC 2P 3W (COMB.) | | 5292-1 | 5292-1 | 5292-1 | 4097-2 |
| 20A-125V AC 2P 3W | 5362-1 | 6300-1 | 5739-1 | 4108-2 |
| 20A-208V AC 4P 4W | 7250 | 7250 | 7250 | 4127-3 |
| 30A-250V AC 3P 3W (DRYER) | | 9350 | 3853 | 9344 | 4132-3 |
| 30A-600V AC 4P 4W | 3430 | | 3430 | LD3430 |
| CLOCK | | | 1544 | 5708 | 4224-5 |

D. Special: Receptacles for special applications shall be as indicated on the drawings.

## 2.03 DEVICE PLATES

A. General: Provide plates for each switch, receptacle, signal and telephone outlet and special purpose outlet. Plates shall be stainless steel unless otherwise noted. Do not use sectional gang plates.

B. Exposed: Plates for exposed screw jointed fittings shall match the fittings with edges of plates flush with edges of fittings. Heavy cadmium plates, steel with gasket. Plates for cast type boxes at locations subject to set or rain conditions shall be of the cast, vapor tight type. Provides hinged covers for devices.

C. Communications: Plates for telephone and signal outlets shall each have a 3/8 inch bushed opening in the center. Wall plates for push button and buzzer outlets shall have openings to

suit the push buttons and buzzers.

2.04 CLOCK OUTLETS

A. Flush, single receptacle, regressed in stainless steel device plate.

PART 3 EXECUTION

3.01 DEVICE PLATES

A. Install with alignment tolerance of one-sixteenth inch and all edges in continuous contact with wall surfaces.

END OF SECTION - WIRING DEVICES AND PLATES